

Report on information needs of the (re-)insurance industry

Introduction

The Gov4Nano Project had initially planned to develop a tailor-made information service regarding the developments in understanding the risks posed by nanotechnologies; the service would form an integral part of the Nanotechnology Risk Governance Council (NRGC). After nine months of dedicated presentations and engagements with representative of the (re-)insurance industry, however, it became clear that nanotechnology was not high enough on their agenda to dedicate any time to it. A single insurance expert, who had agreed to an interview with the Gov4Nano team explained that the insurance industry had not lost interest in nanotechnology, but the understanding was that the 'nano'-label was no longer needed.

There are still open questions [surrounding nanotechnology], but that applies to many emerging risks from new technologies.

(Risk Engineer at Allianz Group (2019))

Description of Work

It was thus agreed to conduct a review of the (re-)insurance industry's initial interest in and active engagement with nanotechnology in the early 2000s, and the developments in the field in the subsequent 15 years.

Main Results

The (re-)insurance industry's initial interest had been caused by a number of reasons, ranging from the genuine worry that the uncertainties and 'unknown unknowns' surrounding nanotechnologies would render the technology entirely 'uninsurable' (i.e. similar to nuclear worst-case scenarios), to the view that nanotechnology harboured lucrative growth opportunities in the form of novel commercial and industrial insurance covers and defence costs. While some insurance companies decided to react to the former worry with the announcement of 'exclusions' of all nanotechnologies (with a focus on nanomaterials) from their policies, their more opportunist colleagues responded to the latter by offering new, nanotechnology-specific policies; the majority of (re-)insurance companies, however, decided to hold dialogue meetings with experts and laypeople, conducted in-depth analyses of nanotechnology and its risks, and subsequently set up nanotechnology-monitoring activities.

The ongoing advancement of nanotechnology-based processes and products over the past 20 years demonstrates that nanotechnologies could be covered by commercial and industrial insurance policies, and that even incidents like that of Magic Nano (i.e. a bathroom sealant spray that had hospitalised around 100 users with (sometime severe) respiratory problems upon inhaling the product's aerosol) did not lead to any nanotechnology-specific losses. The insurance industry did, however, treat the Magic Nano incident as a 'wake-up call' to the entire nanotechnology community, in that it learnt to give a higher weighting to the reputational risks of a technology, and to consequently emphasise analyses of reputational damage exposures and crisis communication.

Until 2017, several (scientific) papers were published, which re-iterated the problems that nanotechnology could pose for the insurance industry, and that had originally been raised by the (re-)insurance industry itself, when it engaged with nanotechnology in the early 2000s. It is interesting, however, that very few publications are authored by the insurance industry itself.

So, what does the (re-)insurance industry think about nanotechnology, and why is not running down the door of those collaborative projects that aim to provide them with



tailor-made information regarding the risks of nanotechnology, or even the insurability of nanotechnology, as suggested by the NMBP-13 projects.

In 2005, the he Allianz Group concluded its first dedicated nanotechnology-report with the following statement:

[...] it seems neither feasible nor appropriate to start a debate about a general exclusion of nanotechnologies from the insurance coverage today.

(Allianz Group, et al., 2005)

The insurer seems to have subsequently lived by this initial verdict, as well as its pledge to 'put its feelers out' on the subject', and to adopt a 'balancing act of risk-taking by limiting transaction costs, improving the evidence base and coping with a degree of uncertainty.'

The insurance industry confirmed that it continued to monitor the technology as an emerging risk. One of its tasks the assessment of the risks spanning across the life cycle of nanomaterials; this was increasingly done together with external partners.

The risk assessment of a company's liability exposure is based on the analysis of the inherent risk and the maturity level of the company to handle those risks (= risk management performance).

This situation [of significant risk] has never occurred in the broad field of nanotechnology, which means that [...] very few or non-nanospecific cases of claims have occurred. This also explains why the insurance industry classifies nanotechnology as an emerging risk but "merely" under monitoring based on the current state of knowledge.

(Risk Engineer at Allianz Group (2019))

Conclusions

The Gov4Nano team had to abandon its initial plans to conduct a detailed analysis of the (re-)insurance industry's knowledge of nanotechnology and to subsequently develop an information service for the industry as part of the NRG's service offering. Nevertheless, this deviation from the initial work plan represents no defeat, but a positive result for the nanotechnology community: all evidence appears to indicate that **the insurance industry has been able to cover commercial and industrial advances in nanotechnology as part of its regular approach to new and emerging technologies; there has been no nanotechnology-specific loss.**

The (re-)insurance industry's ongoing monitoring of the nanotechnology, as well as its classification of the latter as a 'medium risk' with an associated 'first significant impact expected within 1 – 5 years' (CRO Forum, 2019), however, indicates that the technologies' 'phantom risks' or reputational risks remain high. The Gov4Nano team thus decided to re-focus its efforts in support of the development of crisis-management and -communication procedures and recommendations; this new objective could form both an output and a permanent service by the NRG, and thus support the (re-)insurance industry and the versatile nanotechnology industries alike.

For more details about the Gov4Nano project please visit the Gov4Nano website. Public deliverables will be made available in due time via this website.

References

Allianz Global Corporate & Speciality, P. (2017). Emerging liability risks: Nanotechnology in food. Retrieved from <https://www.agcs.allianz.com/news-and-insights/reports/emerging-liability-risks-nanotechnology-food.html>

Allianz Group, & OECD. (2005). Opportunities and risks of Nanotechnologies Report in co-operation with the OECD International Futures Programme.

CRO Forum. (2019). Emerging Risks Initiative Major Trends and Emerging Risk Radar.